

REMARKS

Claims 1-6, 8, 10-18 and 20 are pending in this application. By this Amendment, claims 1 and 11 are amended. Reconsideration of the application is respectfully requested.

The Office Action rejects claims 1-6, 8, 10-14, 16 and 18 under 35 U.S.C. §112, first paragraph. Although Applicants do not necessarily agree with the rejection, claim 1 is amended to remove the limitation of 0.2%. Accordingly, claim 1 satisfies the requirements of 35 U.S.C. §112, first paragraph. As such, withdrawal of the rejection of the claims under 35 U.S.C. §112, first paragraph, is respectfully requested.

The Office Action rejects claims 1-6, 8, 10-14, 16 and 18 under 35 U.S.C. §112, second paragraph because the Office Action alleges that "a phosphoric acid compound" and an "an organophosphoric acid compound" are indefinite. Applicants respectfully disagree. As already argued in the June 3 Amendment, the specification at page 7, lines 1-3 and lines 15-17 clearly defines what a phosphoric acid compound and an organophosphoric acid compound may be. For example, a phosphoric acid compound may be an ortho-phosphoric acid, and an organophosphoric acid compound may be a phosphonoic acid. Also, claim 1 is amended to remove the recitation of "about." As such, claim 1 satisfies the requirements of 35 U.S.C. §112, second paragraph. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. §112, second paragraph, is respectfully requested.

The Office Action rejects claims 1-6, 8, 10, 11, 13, 14, 16 and 18 under 35 U.S.C. §102(b) over JP 62-045681 ("JP"); claims 1-6, 8, 10, 11, 13, 14 and 18 under 35 U.S.C. §102(b) over SU 899,635 ("SU"); and claims 1-6, 8, 10-14, 16 and 18 under 35 U.S.C. §102(b) over WO 98/40441 ("WO"). The rejections are respectfully traversed.

In particular, none of the applied references, alone or in combination, disclose or suggest a coolant that includes a water containing base material and a corrosion preventive additive that includes at least one of a phosphoric acid compound at equal to or more than 0%

but less than 0.2% and an organophosphoric acid compound at equal to or more than 0% but equal to or less than 0.01%, as recited in independent claim 1.

JP teaches a composition for cooling an engine by latent heat of vaporization of the coolant (Abstract). SU teaches a stable liquid that cools and lubricates aluminum or alloy in an efficient manner (Abstract). WO teaches a water-base ball-point ink with metallic sheen and filled directly into an ink reservoir for its use and includes 1-20% by weight of a metallic pigment, 0.1 to 1% by weight of a water-soluble polymeric agent, and water (Abstract).

Accordingly, none of the applied references disclose or suggest a phosphoric acid compound at equal to or more than 0% but less than 0.2% or an organophosphoric acid compound at equal to or more than 0% but equal to or less than 0.01%. The Office Action indicates that the phosphoric acid present in JP is at about 0.23%. Thus, because JP teaches phosphoric acid at 0.23%, JP does not teach a phosphoric acid compound at less than 0.2%. Moreover, JP is directed to improving the resistance of a coolant to corrosion, and the coolant is used in a general internal combustion engine. JP makes no mention of any electric conductivity of the coolant. As such, JP fails to disclose each and every feature of independent claim 1.

The Office Action acknowledges that both SU and WO do not disclose either a phosphoric acid compound or an organic phosphoric acid compound (Office Action, page 3, lines 17 and 18, and page 4, line 7). Moreover, SU discloses a coolant that comprises polyoxyethylated stearic acid, which is an electrolyte solution. Accordingly, the coolant disclosed in SU has a high electric conductivity because it is an electrolyte solution which purpose is to allow an easy charge transfer in the solution. As such, the electrolyte solution of SU does not have an electrical conductivity that is equal to or less than 100 $\mu\text{S}/\text{cm}$, as recited in independent claim 1.

Also, WO teaches a ballpoint pen ink that includes a rust-preventive additive, however, it is clear to the ordinary person skilled in the art that the properties required of a coolant for a fuel cell that is exposed to a high temperature environment are quite different from the properties of an ink for a ballpoint pen. As such, there is no motivation for applying WO, which belongs to a substantially different technical field, to disclose the features of the claimed invention. Moreover, WO teaches a solution that contains 1% triethanolamine, which is similar to Example 1 of the current invention. Example 1 exhibits a high electrical conductivity. As such, without any indication to the contrary, the ink taught in WO must also exhibit a high electric conductivity. Thus, WO fails to disclose or suggest each and every feature of independent claim 1.

Finally, with respect to independent claim 11, none of the applied references, alone or in combination, disclose or suggest a coolant that includes a rust-preventive additive that is a nonionic series substance, as recited in independent claim 11. A nonionic series substance that is dissolved in a solvent does not ionize the solvent. Accordingly, a nonionic series substance does not affect the ionic concentration, or the electric conductivity, of an aqueous solution. Moreover, a nonionic series substance does not require pH adjustment because it does not affect the pH of a solution. Thus, when a nonionic series substance is used as a rust-preventive additive for a coolant, the electric conductivity of the coolant is maintained at its low level. As such, because none of the applied references disclose or suggest a nonionic series substance, and because there would be no motivation to assume that the applied references contain a nonionic series substance, none of the applied references disclose, suggest or render obvious the features of independent claim 11. As such, independent claim 11, and its dependent claims, are patentable over the applied references.

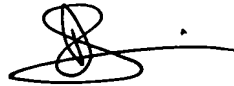
Because none of the applied references disclose or suggest the features of independent claims 1 and 11, independent claims 1 and 11, and their dependent claims, are patentable over

the applied references. Accordingly, withdrawal of the rejections of the claims under 35 U.S.C. §102(b) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-6, 8, 10-18 and 20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: October 6, 2005

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